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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,541	02/23/2004	John Sinko	1406.17406-PROV FOR CIP	7750
26308 7590 04/17/2007 RYAN KROMHOLZ & MANION, S.C. POST OFFICE BOX 26618 MILWAUKEE, WI 53226			EXAMINER ZHENG, LOIS L	
			ART UNIT	PAPER NUMBER
			1742	

  

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/17/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/784,541	<b>Applicant(s)</b> SINKO, JOHN	
	<b>Examiner</b> Lois Zheng	<b>Art Unit</b> 1742	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 January 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 13-16 and 27-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 17-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/23/04</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election with traverse of invention group I, claims 1-12 and 17-26 in the reply filed on 23 January 2007 is acknowledged. The traversal is on the ground(s) that searching invention groups II and III together with invention group I would not impart serious burden on the examiner. This is not found persuasive because invention group II is directed to a method for producing a protective corrosion inhibitor composition comprising an inorganic compound, which is very different from the metal cation containing composition as recited in the process of invention group I. Therefore, the search direction is significantly different for invention group II. Invention group III is directed to a product, which is not limited by the particular process limitations as recited in invention group I during examination. Therefore, the search for invention group III is much broader than the search for invention group I in order to include all processes that produces the claimed product. For at least these reasons, the examiner has demonstrated that series search burden would occur if invention groups I, II and III are examined together.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 13-16 and 27-36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention groups II, III and IV, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 23 January 2007.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 6-12 and 17-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sinko 6,129,610 (Sinko).

Sinko teaches a process for treating aluminum or steel with a corrosion-inhibiting composition.

Regarding claims 1, 4, 6-12 and 17-25, the process as taught by Sinko includes applying a coating composition comprising a material selected from di-mercapto, polymercapto and their derivatives such as DMTD and/or TMT compounds and their derivatives, and metal cations such as Zn(II), Al(III), Mg(II), Ca(II), Sr(II), Ti(IV), Zr(IV), Ce(III or IV) and Fe(II or III); drying and curing the applied coating; and subsequently coating the coated metal with paint, as recited in instant claims 1, 4, 6-12 and 17-25 (abstract; column 1, lines 16-20; column 5, lines 45-67; column 6, lines 24-31 and 51-53; column 7, lines 5-33, examples). Sinko teaches the specific sulfur-containing compound claimed in instant claims 6-7, 9-10, 18-24 (column 8, lines 10-49).

However, Sinko does not explicitly teach the water solubility as recited in claims 1, 3, and 17 or the coating thickness as recited in claim 2.

With respect to the claimed water solubility, one of ordinary skill in the art at the

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time that the invention was made would have found the solubility of the coating material obvious because the composition taught by the reference is substantially the same as the composition recited in the claims and therefore one of ordinary skill in the art would expect that the products taught by the references would be the same as applicant's claimed product, including the product's (i.e. the coating composition's) solubility in water, see MPEP 2112.01.

With respect to the claimed coating thickness, one of ordinary skill in the art at the time that the invention was made would have found the thickness of the coating obvious because the prior art teaches the step of coating the substrate in an amount that is effective to bring about a corrosion inhibiting effect (abstract). Because one of ordinary skill in the art would know the amount that produces the corrosion inhibiting effect, one of ordinary skill in the art would find the thickness of the coating obvious in order to provide the corrosion inhibiting effect, including a thickness corresponding the known corrosion-inhibiting amount that overlaps the claimed range of thickness. See MPEP 2144.05.

5. Claims 5 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sinko in view of Ernhoffer et al US 5,171,861(Ernhoffer).

The teachings of Sinko are discussed in paragraph 4 above. However, Sinko does not explicitly teach the claimed protective composition incorporated into a silane-base gel coating as recited in claims 5 and 26.

Ernhoffer teaches adding mercapto group containing organic compounds such as DMTD to a lubricant in order to improve antioxidant, antiwear and corrosion inhibiting

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characteristics(col. 1 line 63 – col. 3 line 2). Ernhoffer further teaches the lubricant can be synthetic oils, such as silane, employed as grease(col. 3 lines 54-65). Therefore, Ernhoffer teaches incorporating mercapto group containing organic compounds such as DMTD into a silane-based gel lubricant.

Regarding claims 5 and 26, it would have been obvious to one of ordinary skill in the art to have incorporated the mercapto group containing organic compounds such as DMTD in the process of Sinko into a silane-based gel lubricant as taught by Ernhoffer in order to improve antioxidant, antiwear and corrosion inhibiting characteristics of a lubricant as taught by Ernhoffer.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lois Zheng whose telephone number is (571) 272-1248. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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